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ENVIRO GUIDE

FOR STUDENTS AND RESIDENTS OF HAMILTON - WENTWORTH

September 1996

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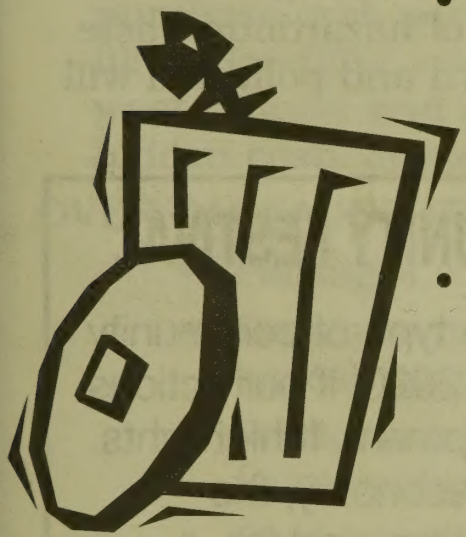
WASTE MANAGEMENT

GARBAGE

How much?



- North America has 8% of the world's population, consumes one-third of the world's resources, and produces almost one-half of the world's non-organic garbage.

- Canadians are the largest waste generators in the world. The average family produces one tonne of solid waste each year. The Region of Hamilton-Wentworth must safely dispose of approximately 200,000 tonnes of solid waste produced by homes and businesses each year.

Where does it go?

- **Transfer Stations:** The three Regional facilities receive waste from residents, industries, and businesses, and compact waste for transfer to the Region's Landfill.

- **Solid Waste Reduction Unit (SWARU - incineration):** Roughly 60% of the garbage collected in the Region of Hamilton-Wentworth is incinerated and the energy is used to fuel the Region's Waste to Energy (WTE) facility. SWARU reduces the volume of solid waste by 95% and generates approximately 14,000,000 kWh of electricity each year. The remaining waste is sent to the Region's landfill.

- **The Regional Landfill:** The Region's landfill site is located in the Glanbrook Township and covers 530 acres, of which only 250 will be used for landfilling.

What can I do?

- As a result of our "throw away" society, landfills are rapidly filling up and pollution is on the rise. However, with a little effort, everyone can help save our environment. By participating in the 3 Rs (reduce, reuse, recycle), composting, and reducing the amount of hazardous waste used, garbage production will slow down and pollution will decline.

VISION 2020 SUSTAINABLE COMMUNITY FESTIVAL

Vision 2020 describes, in broad terms the type of community Hamilton-Wentworth could be in the year 2020, if our actions follow the principles of sustainable development. It highlights the need to keep a balance between the economy, the natural environment, and social/health factors; and for preserving a balance between the needs of present and future generations.

The Festival, October 1996

The SUSTAINABLE COMMUNITY FESTIVAL is a time for everyone to learn about & celebrate the efforts being made to create a sustainable Hamilton-Wentworth. Events include bus & walking tours; a Children's Sustainability Fair; and a large Community VISION 2020 Exhibition in Downtown Hamilton.

Crazy Commute Day, Wednesday October 9, 1996

Get Fresh on Your Way to School or Work and leave the car at home for the day. If you already use an alternative mode of transportation, encourage a friend or neighbour to participate in this community led effort to improve air quality.

How can you participate?

To participate or volunteer for these & other Sustainable Community projects occurring during the year, contact Mark Bekkering at 546-2195 or Maureen Wilson at 546-4225.

REDUCE

TIPS:

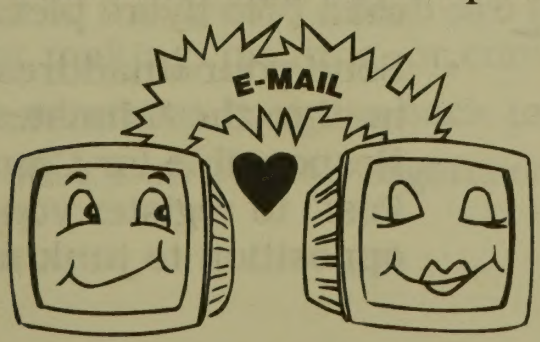
- Reducing your garbage begins when shopping. Try buying fewer disposable products.
- **One-third of our municipal waste is packaging.** Don't purchase over-packaged items. Excess packaging will only fill up landfills, release pollutants during incineration, waste energy and resources, and you will pay for the hidden costs of excess packaging.

OVER-PACKAGED ITEMS INCLUDE:

- Packages containing single serving units.
- Packages made of two or more materials (juice boxes), since containers often are not recyclable.
- Products packaged for convenience (take-out food in foam containers).
- Products that are bulked up with packaging (cosmetics, toys).

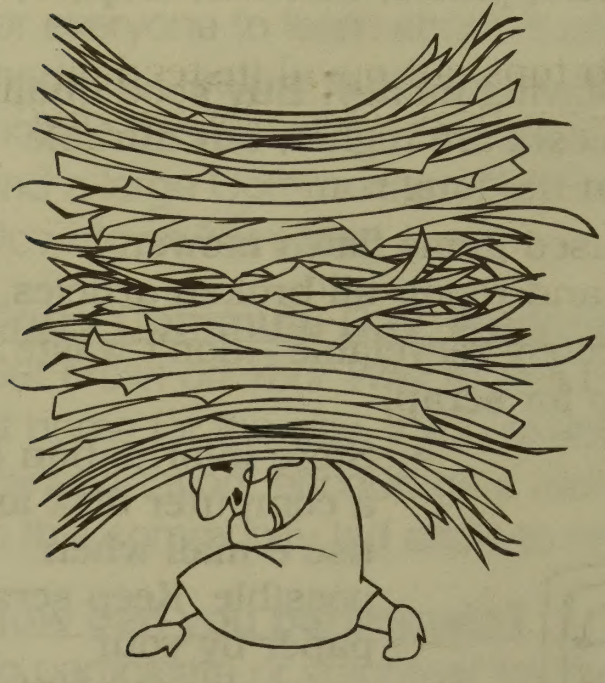
REDUCE PACKAGING by buying larger boxes and purchasing bulk items.

- Substitute reusable products instead of disposable ones, including razors, pens, lighters, plates, utensils, diapers, cameras, batteries, etc.
- Reduce your garbage while saving money. Buy good quality articles built to last. Initial costs are higher, but durable products are cost-effective in the long run.
- Rent or share infrequently used items (lawn mower, shredder, extension ladder) and repair all broken articles.
- Remember paper is not infinitely recyclable - don't waste it! Use both sides and cut it up for scrap.



- Store information on a computer disk and use e-mail when possible. Keep scrap paper by your computer to print out rough drafts.
- Use double-sided photocopies or reduce the size.

- Use cloth napkins instead of paper serviettes and tea towels over paper ones.
- Do not wrap gifts in "throw away" paper. Make (or buy) reusable cloth bags with fancy ties for gift giving or use the comics page from the newspaper as wrapping paper.
- Reduce (and reuse) the number of plastic bags. Use durable, reusable bags when shopping for food, clothing, hardware, or other items.
- When purchasing fruits and vegetables, take one large bag to put them in, instead of using the clear plastic bags available at the grocery store. Separate your items at the check out counter.
- Make an environmentally friendly lunch. Avoid bags or film wraps. Bring a lunch box, reusable containers, thermos, mug, stainless steel utensils, and cloth napkin. Remember to bring food scraps home to be composted.
- If you order food from a cafeteria or deli shop, take your own reusable container for it instead of wasting paper plates or plastic containers.
- Take a mug with you to work or school for beverages.
- **4.5 MILLION TREES ARE CUT DOWN EVERY YEAR TO MAKE JUNK MAIL IN CANADA.** Refuse junk mail. To remove your name from most mailing directories, write to:



Canadian Direct Mail
Marketing Association
Attention: Mail Preference
Service
1 Concord Gate, Suite 607
Don Mills, Ontario
M3C 3N6

- Also post a message on your door refusing junk mail ("No flyers please").
- Send your unaddressed ad mail to the "Minister Responsible for Canada Post" to register your opposition to junk mail.

REUSE

Reusing products extends their lives and doesn't require the energy and resources needed for recycling. Find ways old items can be useful again.

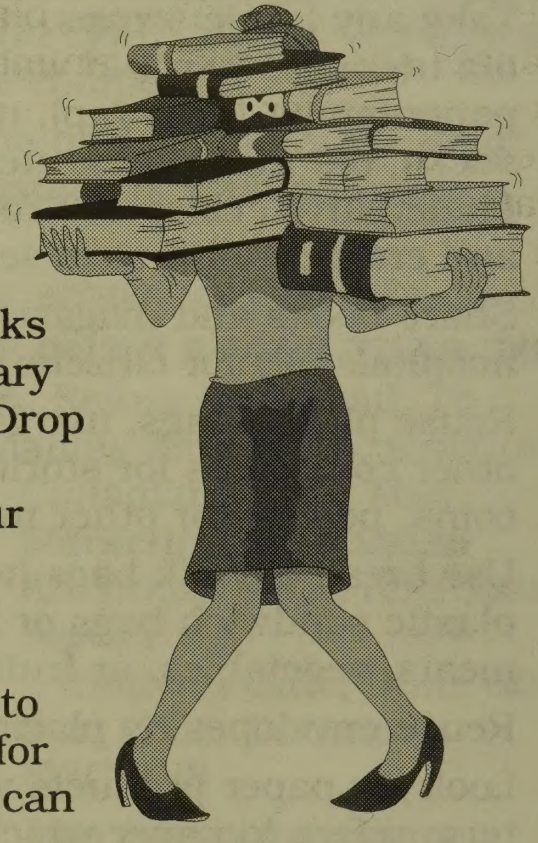
TIPS:

- Donate to charities, churches, or organizations such as the Salvation Army, St. Vincent de Paul, or Amity Goodwill. Call first for a list of acceptable items. (See Directory at end of the Enviroguide).*
- Try shopping at a second hand store for books, Halloween costumes, etc.
- Take any fabric scraps, ribbons, buttons, Christmas cards, old utensils, toys, old wallpaper rolls, poster paper, fancy paper (crepe, gift wrap), nuts, shells, cardboard, popsicle sticks, old magazines, etc. to nurseries, daycares, kindergarten classes, Brownies, Cub Scouts, etc. for arts and crafts. Call first to see which items they reuse.
- Share books and magazines with friends or donate them to hospitals, senior citizens' homes, or libraries.
- Reuse plastic bags, margarine and yogurt tubs, jars, or other containers for storing food, screws, nails, paper clips, coins, pencils, or other miscellaneous articles.
- Use bread or milk bags (with tops cut open) instead of plastic sandwich bags or freezer bags. Great for freezing meats, vegetables, or fruits.
- Reuse envelopes by placing a new label over the old one.
- Look for paper products with post-consumer content. (This term refers to paper which has been used by the consumer and discarded for recycling. Less desirable is post-producer paper or mill waste which are the scraps of trimmings from paper making, printing, or converting processes.)
- Take wire coat hangers back to the dry cleaners.
- Use shoe boxes as an organizer for tapes, photographs, or letters.

- Use rechargeable batteries whenever possible. Do not discard batteries in the garbage. Take them to a hazardous waste disposal depot.
- Used motor oil is recyclable. Ask your local service station if they collect used motor oil. Buy re-refined motor oil.
- Have a yard sale for those items you cannot reuse. Neighbours or friends may find good use for your unwanted goods.

Here is a list of places accepting used items. Call other facilities and ask at stores where you regularly shop. They may be able to reuse your old materials too.

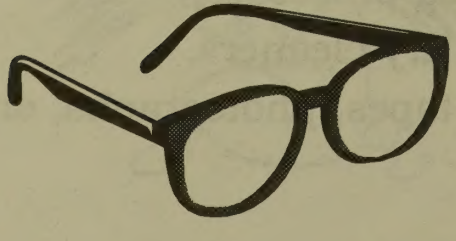
Refer to Directory at end of Enviroguide for locations and phone numbers.



BLANKETS: The Wesley Centre accepts blankets, towels, and other items associated with personal hygiene.

BOOKS: Save and donate old books to Hamilton's Central Public Library located in Jackson Square Mall. Drop them off near the entrance (first floor). The Neighbour to Neighbour Centre will also accept old books.

EGG CARTONS: Take clean egg cartons (styrofoam or cardboard) to Bennette's Butcher on the Block for recycling. Cardboard egg cartons can also be recycled in your blue box.



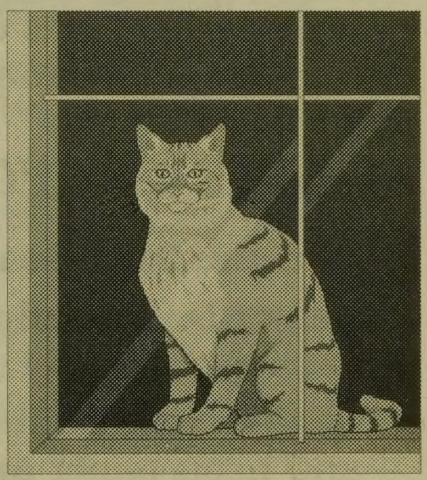
EYEGLASSES: Take clean eyeglasses that are in reusable condition to Bowes Cleaners, Jones Optix, Shorney's Optical, the Canadian National Institute for the Blind (CNIB), or LensCrafters stores. Other optical stores and optometrists will also accept eyeglasses.

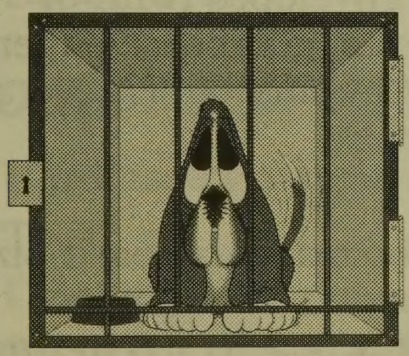
FILM CONTAINERS: Empty film containers with or without lids are accepted at any Black's location. Hospitals and other institutions will use them as pill containers.

HEARING AIDS: Both working and non-working hearing aids (parts are used for repairs) are accepted at the Hearing Institute or the Canadian Hearing Society for reuse in developing countries.

METALS: Any type of plumbing and electrical fixtures, nails, door knobs, etc. are accepted at any one of the Transfer Stations for recycling. Remove as much of the non-metal parts as possible and place in a special bin.

MISCELLANEOUS: The Humane Society SPCA accepts old towels, blankets, and flannel sheets to keep animals warm; newspapers for bedding; and empty, cleaned, small cat food tins for use as watering dishes. Newspapers and tins are recycled after use. *Do not include clothing, flyers, or glossy magazines with donations.*





* If you cannot arrange to have your large items (chesterfields, sofas, chairs, bookshelves, mattresses, box springs, TV, stereos, scrap metals (eg. bike frames), microwave ovens, etc.) or appliances (clothes washers and dryers, dish washers, stoves, refrigerators/freezers, window mounted air conditioners, dehumidifiers, other CFC bearing items, hot water heaters) re-used, dispose of them properly via the White Goods (Appliance) Program and your local large item collection programs.

RECYCLE

Recycling diverts waste from landfills and saves raw materials and energy.

- Recycling an aluminum pop can is the same as saving half a can of gasoline.
- The amount of energy saved by recycling one glass bottle can operate a 100-watt bulb for four hours.
- Recycling about 2000 daily newspapers saves 19 trees.
- Recycling one tonne of steel cans saves 1.36 tonnes of iron ore and 3.6 barrels of oil.
- It takes 95% less energy to make an aluminum can from recycled aluminum than from virgin materials.

PLEASE RECYCLE...

Beside the Blue Box:

✓ Bag or bundle all newspapers, inserts, magazines, and catalogues.

✓ Bag or bundle fine paper (white or coloured paper (bright and neon paper are also accepted)), envelopes (with or without windows), bills and statements, computer paper, "Post-it" notes, paper back books, wrapping paper, even shredded paper, and brown/paper bags.

✓ Old telephone books.

✓ Flatten and bundle corrugated cardboard, cardboard pizza boxes, cardboard food boxes, and cardboard appliance containers. Maximum bundle size: 2 ft. x 2 ft. x 8 in. high

✓ Boxboard (cereal, laundry, cracker, shoe boxes, etc.). Remove liners and plastic attachments. Flatten and stuff into one large box.

✓ Paper egg cartons. Flatten and place inside a boxboard box.

Inside the Blue Box:

- ✓ Metal (steel, aluminum, bimetal) cans (pop, beer, pet food, spaghetti sauce, etc.), rinsed with lids place inside. Crimp the can to keep lids within. Do not forget to include lids from frozen concentrated juice.
- ✓ Rinsed plastic bottles and jugs with the lids removed. Place metal lids (but not plastic) in blue box. Include jugs from washer fluid, antifreeze, laundry and dish detergent, bleach, and fabric softener.
- ✓ Aluminum pie plates and food trays with all food residues removed.
- ✓ Rinsed glass bottles and jars (clear or coloured) with lids removed. Place metal lids (but not plastic) in blue box.
- ✓ Plastic bags (bread, sandwich, frozen vegetable, dry cleaning, merchandising, and crinkly bags). Stuff all bags into one bag and tie handles together.
- ✓ Cores of wrapping, toilet, or paper towel rolls. Be sure to remove all paper first.
- ✓ Empty aerosol and paint cans. Place paint cans separately in the blue box. If paint cans or aerosol cans still contain product, take them to the Household Hazardous Waste Depot

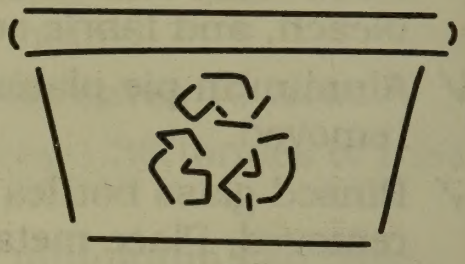
DO NOT RECYCLE...

- ✗ Hard covered books.
- ✗ Toys.
- ✗ Drinking boxes.
- ✗ Waxed or coated cardboard (boxboard is accepted).
- ✗ Carbon paper.
- ✗ Wide mouth containers (yogurt and margarine tubs).
- ✗ Motor oil, transmission or brake fluid containers.
- ✗ Coat hangers.
- ✗ Drinking glasses, mirrors, or window glass.
- ✗ Light bulbs, china, or ceramics.
- ✗ Medical containers (pill bottles, needles, etc.).
- ✗ Milk cartons

Help reduce costs by following these suggestions:

- Prepare recyclables as described above.
- Place your recyclables out for collection by 7:00 a.m. and only when the bin is full.
- Separate recyclables from your regular garbage cans and bags by at least three feet.
- Place your blue box next to your neighbours.

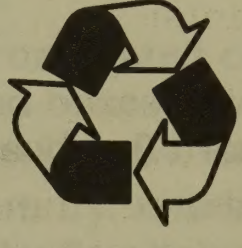
Need a recycling bin?



A blue box will be supplied to each household. To order one please call the Recycling Hotline, 545-4480, for details. Blue bins may also be purchased at your local Canadian Tire store for around $10. Blue bags are available in most grocery stores and are suitable substitutes for a recycling bin. Alternatively, you can use an old laundry basket, plastic crate or bin and place it beside your neighbour's blue box. Make certain recyclables are easily visible through the container. If they are not, the collection crew may not know to take them.

REMEMBER TO BUY PRODUCTS MADE FROM RECYCLED MATERIALS.

More items will be recycled if there is a market for these products.



CALL:

- ☎ Blue Box Programme Inquiries/Recycling Hotline: **545-4480** (24 hours) or **546-2157**
- ☎ SPECTEL for updates on the Recycling Programme: **521-5600 code 7490**
- ☎ Waste Reduction Information Service (WRIS) (a service of the Recycling Council of Ontario): **1-800-263-2849** or **(416) 960-0938**

HOUSEHOLD HAZARDOUS WASTE

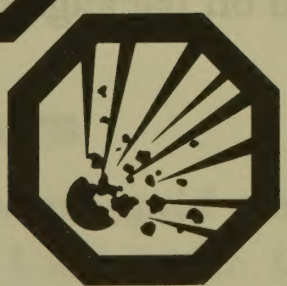
The manufacturing of almost all products, including shoes, VCRs, and microwave ovens, generates hazardous waste (products that contain toxic ingredients). However, industries are not the only source; each year, every Canadian household produces an average of 20-40 litres of hazardous waste. Such waste is potentially harmful to human health and the environment and requires special storage, collection, treatment, and disposal to reduce or eliminate any hazards.

To warn of dangers, look for the following symbols:

CORROSIVE - Very acidic or caustic substances which deteriorate or eat away at materials (battery acids, pool and bathroom cleaners).

TOXIC - Substances that are poisonous or lethal to humans or animals if touched, swallowed, or if inhaled, even in small amounts (antifreeze, pesticides, mercury).

FLAMMABLE - Waste that catches fire or explodes readily at low temperatures (fuels, nail polish, most paints).



REACTIVE - Waste that undergoes unwanted reactions when exposed to other substances which could explode or give off toxic fumes (bleach, ammonia, pool chemicals).

Disposal of Household Hazardous Waste:

DO NOT POUR HAZARDOUS WASTE ONTO THE GROUND, FLUSH DOWN DRAINS OR TOILETS, OR THROW OUT IN THE GARBAGE.

Improper disposal can contaminate drinking water, groundwater, damage pipes, harm sewage treatment

organisms, or put others at risk. A local disposal depot safely handles the waste to be recycled, burned, chemically treated, or buried in a special sanitary landfill.

✎ *WHO?*

Hotz Environmental Services operates Hamilton-Wentworth's household hazardous waste disposal depot.

✎ *WHERE?*

239 Lottridge Street (north of Barton, between Gage and Sherman), Hamilton.

✎ *WHEN?*

Waste is accepted from Hamilton-Wentworth residents free of charge every Saturday from 9:00 a.m. to 5:00 p.m.

✎ *WHAT?*

ACCEPTABLE WASTE: Disinfectants, bleaches, mothballs, pesticides, antifreeze, paint, wood preservatives, gasoline, propane, lighter fluid, turpentine, used oil, BBQ starters, batteries (auto and dry cells), cleaners (liquids and powders), pool chemicals, furniture polish, nail polish, outdated medicines, photographic chemicals, etc. full/partially full paint and aerosol cans, syringes, etc. ALL PRODUCTS MUST BE SEALED AND LABELLED.

UNACCEPTABLE WASTE: Radioactive waste, biological or pathological waste, ammunition, explosives, and PCBs.

Remember to reduce hazardous wastes in your home...

- Use only the amounts recommended on package directions.
- Buy only what you need.
- Ensure proper disposal.
- Use safer, non-toxic alternatives.

CALL:

☎ SPECTEL for update on the Hazardous Waste Program: **(905) 521-5600 code 7491.**

☎ Region's "Spills Action Line" to report illegal dumping or accidental spills: **(905) 546-1300.**

ALTERNATIVE CLEANERS

- **$AVE MONEY:** Alternative cleaners cost less, but work just as efficiently as popular commercial cleaners.
- **REDUCE:** Making your own cleaners can reduce the amount of hazardous wastes, packaging, and garbage in your home.
- **CONSERVE:** Raw materials and industrial power will be saved.

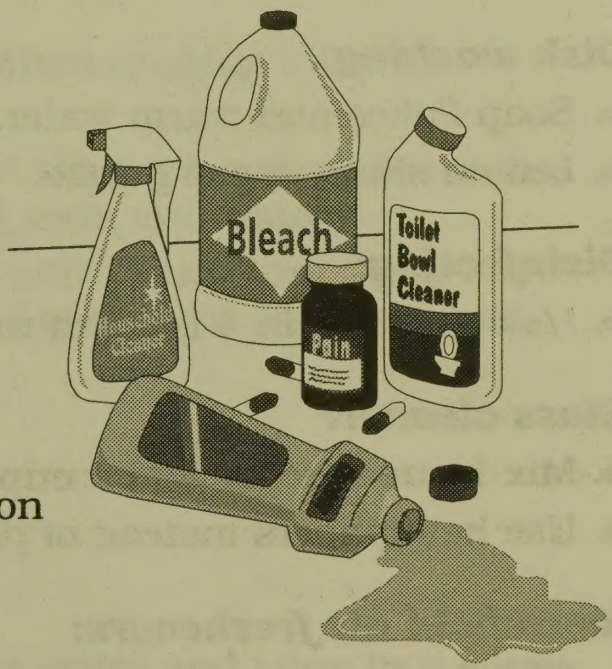
RECIPES FOR ALTERNATIVE CLEANERS:

Buy the basic ingredients in bulk (baking soda, baking powder, borax, cornstarch, pure soap (e.g. "Ivory"), washing soda, lemon juice, table salt) or purchase ready-made, environmentally friendly cleaners at the following locations:

Captain Environment
1405 Upper Ottawa, Hamilton
318-8882

Horn of Plenty
24 King St. West, Dundas
627-9980

Goodness Me Natural Food Market
880 Upper Wentworth, Hamilton
388-8400



Cleaners

All-purpose liquid cleaner:

- ✎ Mix 1 L hot water, 15 mL soap flakes, 30 mL borax, and a dash of vinegar or lemon juice.
- ✎ Mix 2 tbsp baking powder, 1/2 cup white vinegar, and 1 gallon warm water.

Abrasive cleaner:

- ✎ Sprinkle baking soda on any surface and scour with a damp cloth; rinse well.

Carpet/upholstery cleaner:

- Clean carpet or upholstery stains immediately with cold club soda; sprinkle cornstarch on the rug, wait 1/2 hour and vacuum.

Drain cleaner:

- Clear a clogged drain by pouring a mixture of 250 mL baking soda, 250 mL salt, and 125 mL white vinegar down the drain; cover with a stopper for 15 minutes.
- Another way to clear clogged drains: pour 1/4 cup baking soda and 1/2 cup vinegar into drain; wait for it to fizz, then rinse with hot water.
- Open drain with a metal snake or plunger; keep drains odour free by rinsing with boiling water twice a week; prevent odours and clogs - avoid pouring liquid grease into drains.

Dish washing:

- Soap flakes and warm water.
- Lemon slices to cut grease.

Disinfecting:

- 1/2 cup borax in 4 L warm water (used in hospitals).

Glass cleaner:

- Mix 1 cup vinegar and 1 cup warm water.
- Use newspapers instead of paper towels to wipe glass.

Household air fresheners:

- Keep house clean and well ventilated.
- Boil cinnamon and cloves in water.
- Place 30-60 mL baking soda or vinegar in small bowls around the house or in the refrigerator.

Kettle descaler:

- Boil 1 part vinegar with 2 parts water in kettle for 15 minutes. Rinse thoroughly, then boil full kettle of water for 15 minutes.

Laundry:

Washing powder:

✎ 5 cups pure soap flakes and 1 cup washing soda.

Fabric softener:

✎ 1/2 cup baking soda used in final rinse.

Whitener:

✎ 1/2 cup borax.

Starch:

✎ Shake 1 tbsp cornstarch and 1 cup water in spray bottle.

Grease remover:

✎ Damp cloth dipped in borax.

Mould and mildew:

✎ Apply vinegar with toothbrush or scrub with baking soda.

Oven cleaner:

✎ Always use a baking sheet when cooking to catch overflows.

✎ Immediately scrub area after the oven has cooled with a paste-like mixture of baking soda and water.

✎ Mix 30 mL liquid dish soap and 15 mL borax in a 1 L spray bottle and spray soiled area; wait one hour and scrub with steel wool.

Spills and stains:

✎ Baking soda and soda water.

Window cleaner:

✎ Mix 1 part vinegar to 5 parts water and store in a spray bottle.

✎ For a shine, buff and clean with old newspapers; do not leave clean windows in direct sunlight as solution will dry fast and leave streaks.

Polishes

Metal polishes:

Copper:

✎ Rub with lemon juice and salt or hot vinegar and salt; polish with a soft cloth.

Silver:

- ✎ Rub with baking soda and water .
- ✎ Mix 1 L warm water, 15 mL baking soda, 1 mL salt, boil, and add a small ball of aluminum foil; drop in silver and let boil for three minutes; polish with a soft cloth. (Do not use on silver plating.)

Chrome:

- ✎ Rub with undiluted vinegar using a soft cloth.

Furniture polish:

- ✎ For wood surfaces apply a mixture of 1 part lemon juice to 2 parts vegetable or mineral oil and polish with a soft cloth; sprinkle with cornstarch and rub with a soft cloth to add shine.

CONSERVE WHILE CLEANING ....

- ✓ Use newspapers, not paper towels to wipe windows clean.
- ✓ Shred old T-shirts and sheets to use as rags
- ✓ Use sponges, not disposable paper towels.

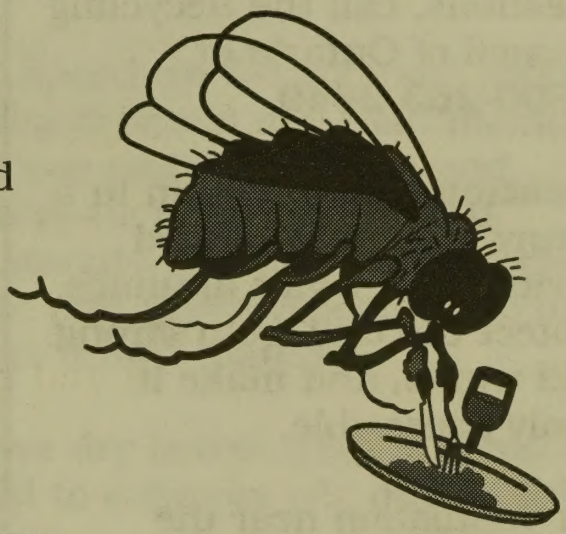
COMPOSTING

Composting involves the natural breakdown of organic wastes by micro-organisms to produce a nutrient-rich soil conditioner called humus.

Why compost?

- **SAVE LANDFILL SPACE:**

Composting kitchen and yard waste will reduce household garbage by 30%. Organic materials - food scraps and yard debris - make up one-third to one-half of the average householder's waste.



- **IMPROVE PLANT GROWTH:**

Compost adds essential nutrients, moisture, and air to all soils, making them better able to support plant life. Since compost acts as a natural fertilizer, composting can reduce the need to use synthetic fertilizers.

- **CONSERVATION:**

Compost produces healthier plants which clean the air and help prevent soil erosion.

Simply piling food scraps and yard debris into one area of your backyard will produce compost. However, to obtain the best humus, reduce odours, and make a more attractive yard, try some of the following suggestions.

GETTING STARTED:

1. Obtain a compost bin. The bin must be bottomless, have a lid, and air holes on the sides. Be original! Build your own composter using a wooden box, garbage can, bricks, or wire fence. Commercial composters can be purchased at hardware stores or garden shops. Hamilton-Wentworth's Green Venture also sells composters.

For information on how to build your own low-cost composter or if you have any other questions, call the Recycling Council of Ontario at **1-800-263-2849.**

2. **Location:** Place the bin in a sunny area of your yard having good water drainage. Protect the unit from strong, cold winds, and make it easily accessible.

3. For ventilation near the bottom of the composter, the first layer should consist of larger wood material (plant stalks, twigs, etc.) and some finished compost or soil.

4. Follow with alternating layers of brown vegetation, green vegetation, then a shovel or two of soil. Soil provides the necessary organisms for decomposition.

5. Keep pile as moist as a damp sponge. Water if necessary. Cover with a lid to prevent rainwater from making the pile too wet and protect from unwanted pests.

6. Aerate pile using a pitch fork, shovel, or rake. Turn pile every two weeks or when too compacted, too wet, or any odours develop.

ACCEPTABLE COMPOST SCRAPS

(ORGANIC MATERIAL)

Nitrogen-rich green materials:

- ✓ Fruit and vegetable peelings or cores
- ✓ Tea bags or coffee grounds
- ✓ Crushed egg shells
- ✓ Crushed nut shells
- ✓ Green grass clippings
- ✓ Wood ashes from wood stove or fireplace
- ✓ Plant trimmings and remains

Carbon rich brown materials:

- ✓ Dry leaves
- ✓ Straw
- ✓ Sawdust in thin layers
- ✓ Wood chips
- ✓ Brown grass clippings

Other:

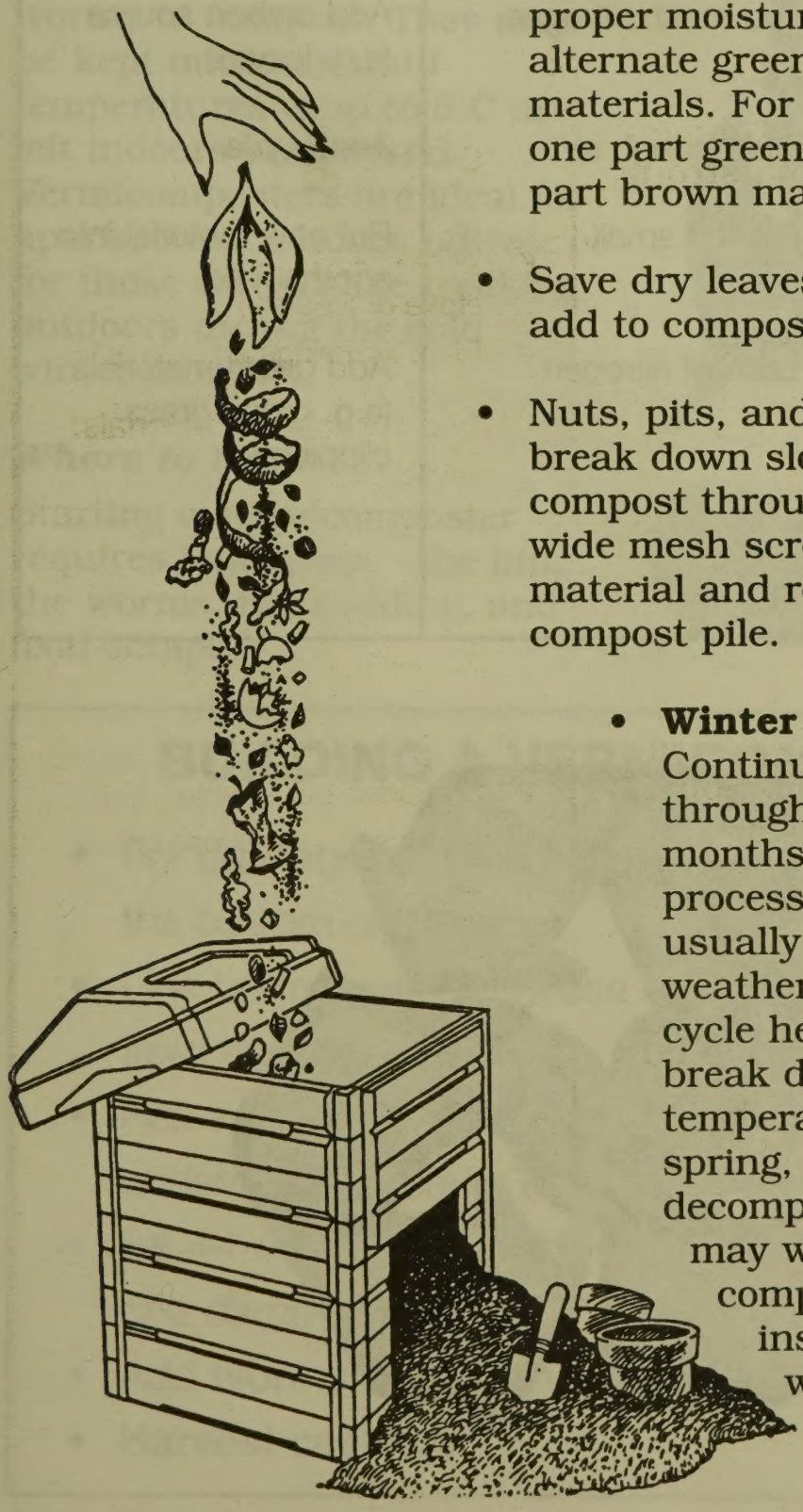
- ✓ Shredded paper (egg cartons, paper towels or napkins, etc.)

Unacceptable compost scraps

- ✘ Meats and bones (attract pests)
  Fats (cheese, salad dressing)
- ✘ Chemically treated grass or tree trimmings
- ✘ Diseased plant matter
- ✘ Rhubarb leaves or other poisonous matter
- ✘ Charcoal and coal ashes
- ✘ Pet waste

7. Compost is finished and ready for use when the pile no longer heats up after it is turned. The process will take anywhere from 6 months to 2 years. Humus should resemble and smell of soil - a crumbly, dark brown-black colour with the original material no longer distinguishable.

HELPFUL HINTS:



- To speed up the compost process, chop or shred material; maintain proper moisture levels; and alternate green and brown materials. For best results, use one part green vegetation to one part brown material.

- Save dry leaves from autumn and add to compost pile during winter.

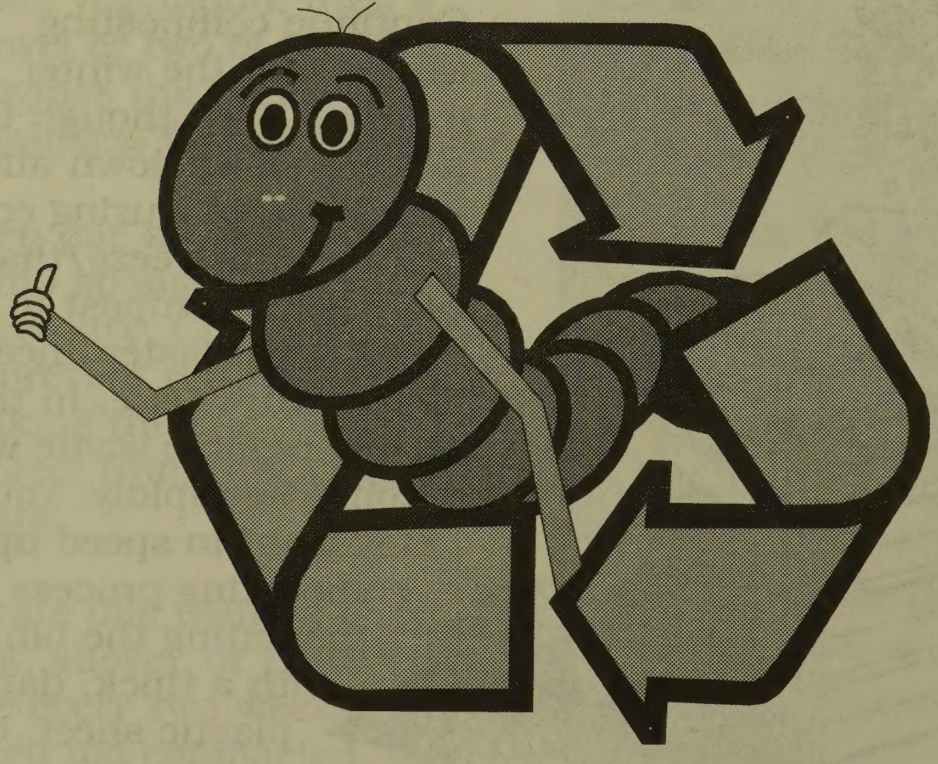
- Nuts, pits, and wood material break down slowly. Sift finished compost through a 0.6 - 2.5 cm wide mesh screen or rake out material and return to the compost pile.

- **Winter composting:** Continue composting throughout the winter months. Even though the process slows down and usually stops during cold weather, the freeze/thaw cycle helps compost to break down faster once temperatures rise. In the spring, organic waste will decompose rapidly. You may want to speed up the composting process by insulating the bin with a thick, dark plastic sheet, old

carpeting, or thick layers of leaves, hay, or straw. If properly insulated, the pile will not freeze and must be turned often.

Trouble Shooting Guide:

PROBLEM	SOURCE	SOLUTION
Smells of ammonia	Too much nitrogen	Add carbon source (e.g. leaves)
Rotten egg odour	Not enough air	Aerate pile
Compost damp and warm in centre only	Bin too small	Put new material into another pile
Pile will not heat up	Lack of nitrogen	Add green materials (e.g. green grass clippings.



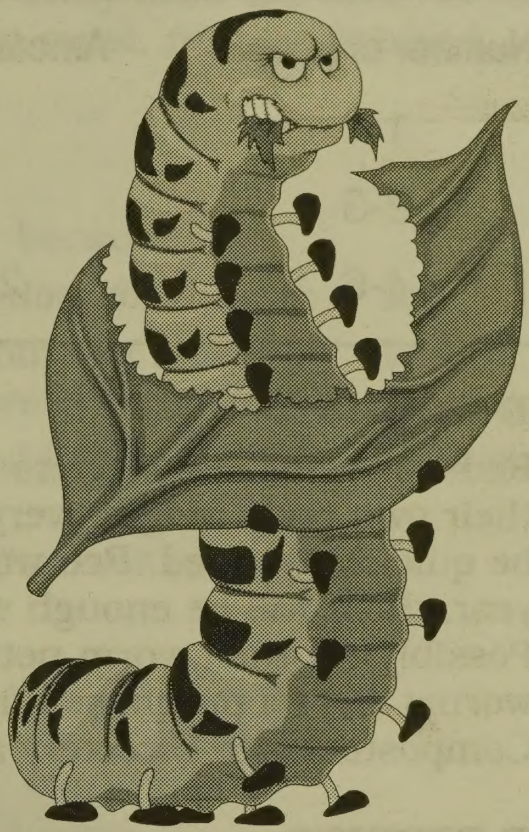
VERMICOMPOSTING

Don't have a composter?

Save food scraps and give them to a friend or neighbour who has a composter or try vermicomposting.

What is vermicomposting?

Vermicomposting simply uses worms to compost. They may be kept outdoors until temperatures drop to 5°C or left indoors year round. Vermicomposters are ideal for apartments, schools, offices, or for those who dislike trekking outdoors during the cold winter months.



Where to begin?

Starting a vermicomposter requires four items - the bin, the worms, the bedding, and food scraps.

BUILDING A VERMICOMPOSTER

- For drainage, drill 4-5 holes *(1 cm in diameter)* in the bottom of the **bin.**
- Line bottom with a cheese cloth to prevent worms from escaping.
- Raise bin on blocks or bricks and place a tray underneath to catch extra moisture
- Fill 3/4 of the bin with damp **bedding** *(consistency of a damp sponge).*
- Add **worms** and feed them **food scraps**
- **Harvest castings.**

THE BIN

- Obtain a plastic bin with a lid from the hardware or department store. The bin should be shallow (8-12 inches deep) and provide one square foot for every pound of food waste per week. The following chart will serve as a guide:

Number of people	Amount of Worms	Bin size
1-2	1 lb.	1 ft x 1.5 ft x 2 ft
2-3	1 lb.	1 ft x 2 ft x 2 ft
4-6	2-3 lbs.	1 ft x 2 ft x 3.5 ft

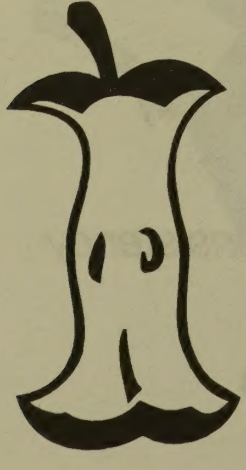
THE WORMS

- Red worms or red wigglers are best. Since they eat and expel their own body weight every day, nutrient-rich castings will be quickly attained. Red worms are also prolific. Within a year, there will be enough worms to start another bin. Possibly set up a worm network with your neighbours! Red worms can be purchased from Earth's Secret Vermi Worm Composters (see Directory at end of Enviroguide).

THE BEDDING

- Shredded newspaper, peat moss, leaves (but not walnut leaves - they are poisonous), or composted manure makes suitable bedding for the worms. Red worms will eat their own bedding. Be sure to mix bedding with equal parts of soil so that the worms won't die in their own excrement.

THE FOOD SCRAPS



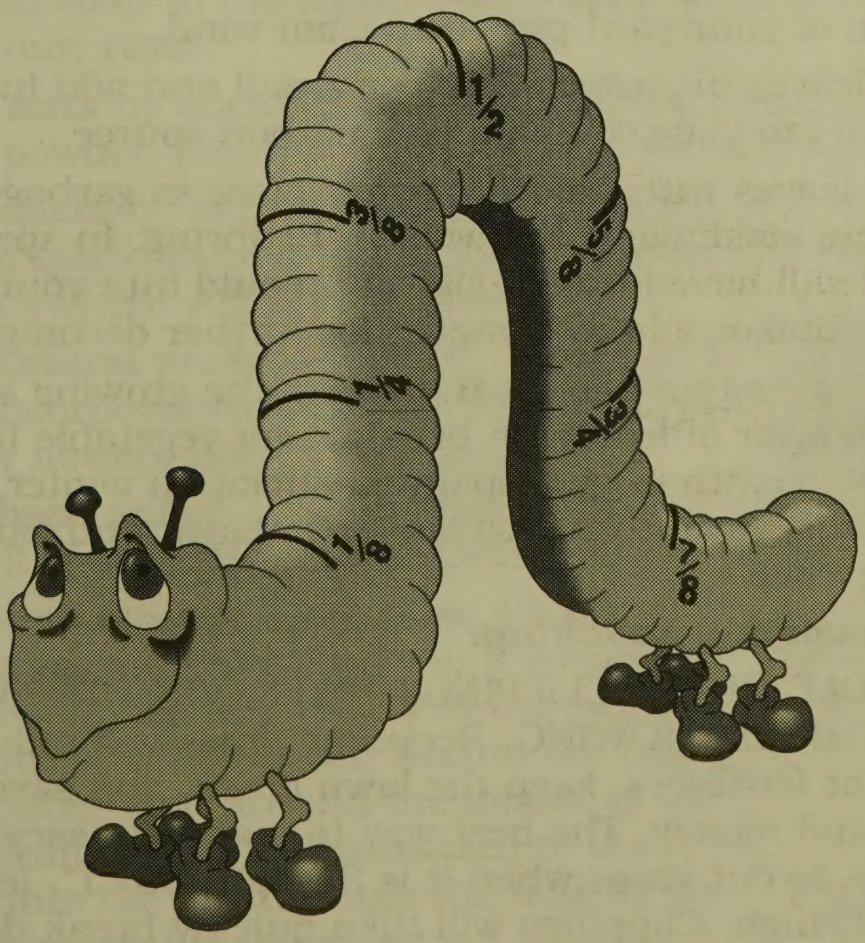
Only kitchen scraps are suitable for feeding the worms. Worms may be fed every few days or once a week. Bury the food in different areas of the bedding each time you feed. For example, mark each corner with a letter for the days of the week (M, T, W, R, F). Bury the food in the appropriate corner. NOTE: If the food from one day is not gone yet, wait until it is. Otherwise, the food will rot and attract undesirable insects.

HARVEST CASTINGS

- After 2-3 months, when the volume of material substantially drops and the original bedding is no longer distinguishable, it is time to harvest. To harvest, move contents of bin to one side, and add food to the new bedding. The worms will move away from the compost in search of food. After one day at most, remove finished castings.

ODOURS

- Unpleasant odours may occur because...
  - ✎ too much food *(stop feeding for a week or so).*
  - ✎ bedding is too wet or compact *(check for blocked drainage holes, drill more if necessary).*
  - ✎ bedding is too acidic *(add rinsed, dried, and finely crushed egg shells).*
  - ✎ harvesting is required *(harvest castings).*



Uses for Humus from Composter and Castings from Vermicomposter:

- Enrich flowers and vegetable gardens. Spread layers of compost, up to 7.5 cm deep, and dig well into soil before planting.
- Make a compost tea. Fill a watering can with equal portions of finished compost and water; stir. Water plants, flowers, lawns, and vegetables.
- Make a nutrient rich potting soil for house plants. Combine equal amounts of compost, soil, and sand.
- Add a handful of compost to the plant hole when transplanting.
- Place in seedling rows before planting.
- Sprinkle as a topsoil around the base of plants.

Disposal of Yard Wastes:

Leaves:

- Try composting leaves separately. Pile leaves in a corner section of your yard protected from wind.
- Store leaves in garbage bags or a pail and add in small amounts to your compost as a carbon source.
- Shred leaves with a lawn mower; place in garbage bags; moisten; close bags; and wait until spring. In spring, leaf mould will have formed. Dig leaf mould into your garden to lighten soil or add to compost for further decomposition.
- Store leaves in a bag. At the end of the growing season, put a thick layer of leaves on beds of root vegetable to insulate. Mark spot with brightly painted sticks. In winter, you will be able to have fresh parsnips, rutabaga, and carrots in your garden.

Grass Recycling/Mulching:

- RECYCLE GRASS CLIPPINGS BY LEAVING THEM ON THE LAWN AFTER MOWING. Recycling grass will reduce the need for fertilizers, keep the lawn green, and save water, time, and money. The best way to make "grasscycling" work is to cut grass when it is 3" high. Cut 1", leaving the lawn 2" high. Clippings will then quickly break down.

- Use wood yard waste, leaves, and dried grass clippings as a mulch around trees, shrubs, and other perennial plantings. Wood materials up to 2.5 cm in diameter should be shredded or chipped first. For flower and vegetable gardens, use non-wood mulch material.

Alternatives For Your Lawn And Garden:

Weed Killers:

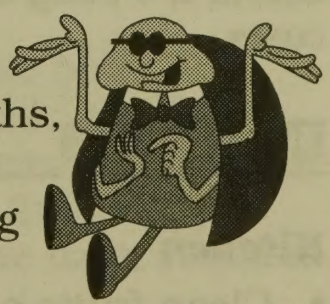
- Remove weeds in the garden and lawn by hand.
- Prevent weeds by keeping lawn a medium length (2 1/2-3")
- For the garden, use mulch or wood chips 10-15 cm thick and hoe often.
- Plant daisies and chives.

Non-Chemical Fertilizers:

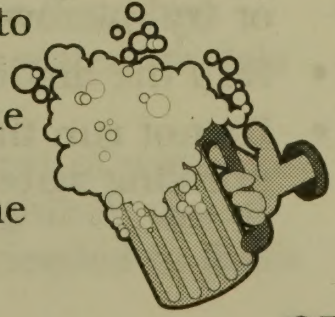
- Evenly spread manure, bone or canola seed meal on lawn.
- Use organic compost on lawn or garden.
- Plant white clover.

Insecticides:

- **Kill aphids** by mixing garlic and green onions in a blender; strain; add soap to the liquid. Spray onto garden; leave for half an hour; rinse.
- **Remove ants** by encircling borrow opening with a line of red chili powder, paprika, or dried peppermint leaves.
- **Repel insects** by experimenting with companion planting. Plant marigolds around tomatoes and cabbages. Garlic and onions anywhere will prevent insects.



- **Attract natural predators** (birds, ladybugs, etc.) by incorporating bird feeders, bird baths, ponds, or flowers into the landscape.
- **Drown slugs, snails, and earwigs** by placing a dish full of stale beer in the garden.
- Set a trap to **remove fruit flies.** Place a half cup of beer in a small glass jar. Poke a hole in a corner of a plastic bag with a pencil. Dip this corner of the bag into the jar, but above the beer. Secure the bag with a rubberband around the mouth of the jar. The fruit flies will be attracted to the beer, fly into the jar, through the hole in the bag, and be unable to get out.



WATER CONSERVATION

- ***Canada has an abundance of fresh water. Why should we be concerned about conserving it?***

Water is the most important natural resource on earth. Without it, no living organism would survive. We all depend on water to wash, cook or prepare our food, water our plants, and to drink. Water is continuously recycled; after use, it is chemically treated then returned to our homes. Water that is wasted mixes with "dirty" or used water and becomes contaminated - all must be treated. The less water we use and abuse, the less we degrade. Conserving water is particularly important for Canadians as we are one of the biggest wasters of water on earth.

- ***How do we use our water?***

On average, Canadians use 350 litres of water daily.

- 40% of water is flushed down the toilet
- 35% of water is used for showers and baths
- 20% of water is used for laundry and dish washing
- 5% of water is used for drinking and cooking.

WATER CONSERVATION TIPS:

One drop per second wastes 25 litres of water per day. Always turn taps completely off when not in use and check for leaks. Leaks are easy to find and fix, usually with minimal repair costs.

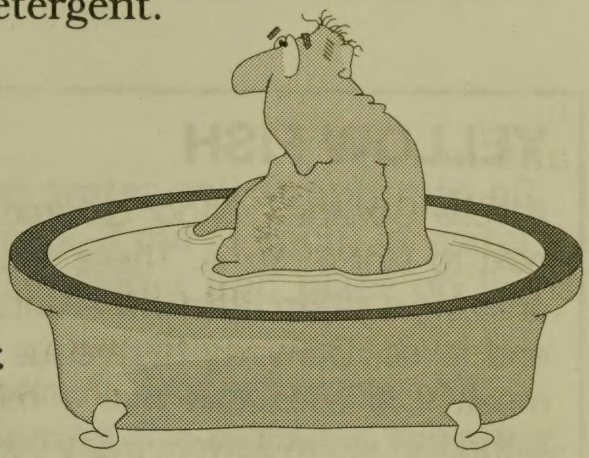
INDOORS

Kitchen

- Clean fruits and vegetables in a partially filled sink.
- When boiling foods, use enough water to just cover foods or try microwaving or steaming which uses even less water.
- Run the dishwasher only when full.
- Do not run the tap to make water colder. Keep a pitcher of drinking water in the refrigerator.

Laundry Room

- Wash only full loads.
- Use the least amount of water possible when washing.
- Use only earth friendly, phosphate-free detergents.
- Limit the amount of laundry detergent.
- Use cold water more often.



Bathrooms

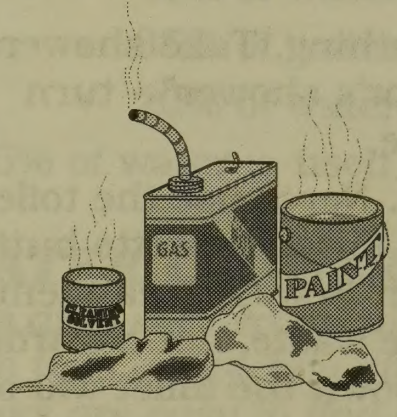
Bathrooms account for 75% of the water consumed inside the home. This room also has the greatest potential for saving water.

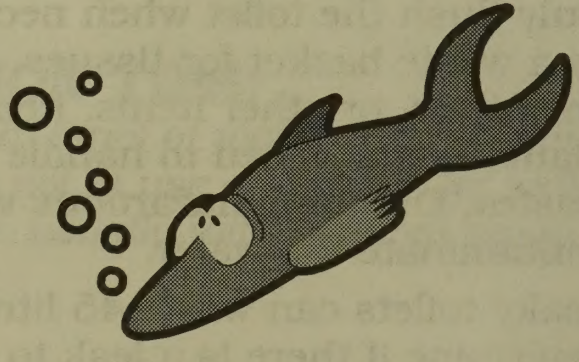
- Save 10-20 litres of water each time you shave by filling the basin instead of letting the water run.
- Turn off the tap while brushing teeth. Use short bursts of water for rinsing.
- Select the most effective means of bathing. Take showers for less than 15 minutes. Try a "sailor's shower" - turn water off, soap up, then quickly rinse.
- Only flush the toilet when necessary. Never use the toilet as a waste basket for tissues, dental floss, cigarette butts, chemicals, or other items. Remember: Sewage treatment plants are designed to handle sewage waste, not hazardous wastes. Dumping hazardous waste down the toilet will only contaminate the water.
- Leaky toilets can waste 45 litres of water per hour. To determine if there is a leak in your toilet tank, put food colouring in the holding tank and wait at least 15 minutes. If the colour shows up in the bowl without flushing, you have a leak. Water leaking at the base of the toilet requires professional care.
- Install low-flow aerated or non-aerated shower heads or faucets. Aerated devices reduce water in the flow, but maintain the pressure by adding air. Non-aerated models pulse the water as in "shower massages".
- A conventional toilet uses more than 13 litres of water for every flush. That's equivalent to three one-gallon jugs of orange juice! Reduce the amount of water needed to flush

by installing a displacement device such as a toilet dam, obtained from a hardware store for less than $10. Or, try filling a 2 L plastic bottle with water and placing it in the holding tank. Each time you flush, you will save 2 litres of water!

YELLOW FISH

Across Canada, school children have been busy painting yellow fish next to storm drains. These fish are there to remind us that anything entering a storm drain will eventually end up in local streams, harbours and lakes. Dumping hazardous waste will affect fish and wildlife the most. It is estimated that 4 million litres of used oil is poured into Canadian storm sewers every year. Just one drop of oil will contaminate 25 litres of drinking water. The message of the yellow fish is to stop the pouring of hazardous waste into storm (or any!) drains. Look for the yellow symbol next to storm drains and remember to conserve our water by disposing of hazardous waste properly.





Yellow Fish Road Programme
Bay Area Restoration Council
Life Sciences Building B130S
McMaster University
(905) 525-9140 ext 27405

OUTDOORS

In summertime, watering lawns and gardens, washing cars, and filling swimming pools increases water consumption by 50%.

TIPS:

- Do not over-water lawns. Excess water will simply run off into storm drains. Lawns require 2-3 cm (1 inch) of water per week. To measure, mark a container and place on lawn when watering.
- Maintain longer grass (2 1/2-3 inches). Longer grass will hold water more effectively, reducing the need for watering.
- Prevent evaporation by watering early in the morning or late in the afternoon. Avoid watering during very sunny or windy periods, or during the evening (which may cause fungi growth).
- Water plants with left over cold tea or coffee.
- Try low maintenance landscaping. Use grasses, shrubs, trees, and flowers native to the region. Native plants will be best able to survive on the amount of water provided by nature and be more resistant to diseases or insects.
- Using a basin, barrel, or garbage can, catch rainwater run-off from the roof. Use collected water for the garden, on plants, or for washing your car. Keep a lid on the water barrel when not in use. Small animals could crawl in and drown in this newly found water source.
- Using a running hose for washing your car wastes 400 litres of water. Using a bucket, sponge, and a trigger nozzle saves 300 litres of water.
- Don't clean driveways with a hose. Use a rake or broom instead.
- In winter, use sand or finished compost on icy driveways and walkways. The use of salt will pollute ground and surface waters.
- Observe and obey water restrictions.

ENERGY CONSERVATION

Acid rain, polluted water, urban smog, and global warming are just some of the consequences of using and producing energy. Since Canada (followed by the United States) is the most inefficient country in terms of energy consumption, we are large contributors to environmental degradation. The following tips will benefit everyone and the environment.

TIPS:

- When purchasing appliances, look for the Energuide label. The lower the kWh (kilo-watt-hour) shown, the less electricity used. Also, choose the right size appliance. Appliances that are too large will waste energy and those that are too small will be overworked.
- Follow the manufacturer's suggestions and directions.

Refrigerator/freezer

- Keep temperature of the refrigerator between 2-5°C and the freezer compartment at -18°C.
- Year round temperature fluctuations may damage the compressor. Keep the appliance in a dry, insulated area, away from direct heat sources - sunlight, oven, etc.
- Provide good air circulation. For an upright model, allow 10 cm between the top and overhanging shelves or cabinets. Chest or upright models should have 5-7 cm of space at sides and back.
- For non-frost free models, defrost when 5 mm of ice builds up. NOTE: Do not use a knife to remove ice. Doing so could damage the freezer.
- Defrost frozen foods in the refrigerator. You will save on the electricity needed to operate the microwave oven and the food will help keep the refrigerator temperature down by absorbing heat.
- Turn off the butter softener.
- Cool hot foods to room temperature before placing in the refrigerator.
- Clean the interior at least once every six months using a soft cloth, baking soda, and warm water.

Electric ranges

- Preheating is unnecessary unless baking. Remember: Only 10 minutes is required for the oven to reach 180°C (350°F).
- Consider using the broiler which saves energy and requires no preheating.
- Pans or pots should have proper fitting lids and fit the element to reduce heat loss.
- Open an oven door as little as possible when cooking. As much as 20% of the oven's heat is lost with each opening.
- Use smaller appliances, such as a toaster oven or electric frying pan, when possible. Both use less energy than stoves and ovens and are ideal for cooking smaller portions of food.

Microwave ovens

- Allow space for proper ventilation.
- Microwave ovens consume 50% less energy than conventional electrical ovens. Use instead of an oven whenever possible.
- Do not use a microwave oven to boil water. It is more energy efficient to boil large quantities of water on a stovetop. Or better still, use an electric kettle.
- Use baking soda (or a mild detergent) and warm water to clean food spills, doors, and hinges as needed.

Dishwashers

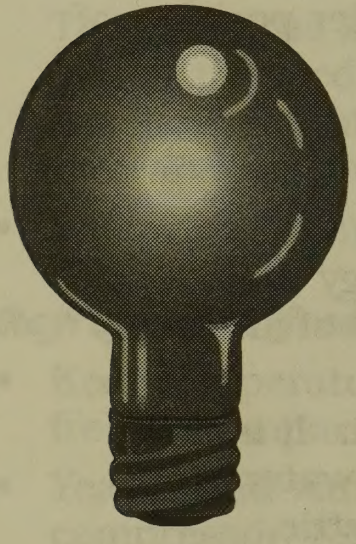
- Dishwashers work most efficiently when full, but not over loaded. Wait for a full load. Two half loads use twice as much energy as one full load.
- If there is no energy saving drying feature, turn dishwasher off at the end of the rinse cycle and open door to let dishes air-dry.
- Every month, clean door seals, hinges, and interior with a mild detergent.

Clothes dryer and washing machine

- Avoid using the clothes dryer whenever possible - try a clothes line.

- Don't overload dryer or washer.
- Don't over-dry clothing. This wastes energy and is bad for your clothes.
- Reduce the energy required to heat your water - use warm or cold water.
- Wait for a full load and use small load settings on the washer if possible.
- If the lint filter is not self-cleaning, clean after each use.

Lighting



- Turn all lights (and appliances) off when not in use, even if for a short time.
- Use timers, dimmers, and motion sensor lights to reduce light output and allow for the desired level of lighting.
- Dust bulbs often. Dust-free bulbs are more efficient since layers of dust lower lighting levels.
- A 25-watt bulb consumes one-quarter the electricity of a 100-watt bulb. Consider using lower wattage bulbs where higher light output is not necessary.
- Look for energy saving bulbs in a slightly lower wattage; 34, 52, and 90 watt bulbs replace the traditional 40, 60, and 100 watt bulbs with only a slight difference in light output.
- Try compact fluorescent bulbs which consume 70% less energy and provide the same white light as incandescent bulbs. Even though compact fluorescent bulbs cost more initially, 10 incandescent replacements will be needed by the time one compact light bulb burns out. When purchasing compact bulbs look for ones having separate or built-in adapters which fit into existing sockets.
- Use halogen bulbs which produce slightly whiter light, last 2-4 times longer and use 40% less electricity than incandescent bulbs.

Water heaters

- Insulate hot water pipes.

- Set the temperature of your water heater between 55OC and 60OC. At these temperatures, bad scalds will be avoided and you will save energy.
- Reduce energy consumption required to heat water by using warm or cold water whenever possible.

Reduce heat and air conditioner losses

- Limit the use of air conditioners. Close curtains to avoid direct sunlight; turn off lights and appliances; use ceiling fans.
- Keep indoor humidity down; use an exhaust fan in the bathroom and kitchen.
- To heat and humidify a room during the winter, let the hot water after a bath (or doing the dishes) sit.
- Since heat rises, insulate your ceiling well. This insulation can reduce your heating bill by 30%.
- Air leakage accounts for as much as 40% of household heat loss. Good ventilation is important, but it should be controllable. Check the attic, basement, windows, walls, floors, and doors for air leaks.

Weatherstripping

- Minimize air leakage around moveable joints. Apply to door sills and jambs, window frames, storm windows, and the attic hatch where the trap door shuts. Purchase materials from hardware stores and follow package directions.

Caulking

- Apply around baseboards where floor and wall meet; where door and window frames meet wall; around ceiling light fixtures; around electrical outlets or around permanent fixtures. Hardware stores will carry caulking in a tube or as a semi-liquid which is applied with a caulking gun.
- Reduce air leaks by sealing mail slots. Replace with an outdoor mail box.
- Block drafts at floor level using a fabric "snake", available in specialty stores, or make your own; roll up bulky fabric, sew together, and place at bottom of doors.

- Seal leaky wall outlet gaskets (electrical outlets).
- Don't heat unnecessary space. Keep closet doors closed.
- Don't cover heating vents with carpets, furniture, or curtains.
- Open curtains in the winter to let the sun in to warm your house. In the summer, close them and keep cooler.
- Keep the thermostat down in the winter and put on a sweater. Use the following guidelines for thermostat temperature settings which provide comfort while using electricity wisely:

  21°C (70°F) for relaxing

  20°C (68°F) when working or exercising

  18°C (64°F) for sleeping

  16°C (61°F) when no one is home
- Invest in an electronic thermostat regulator than can be programmed.

Outside

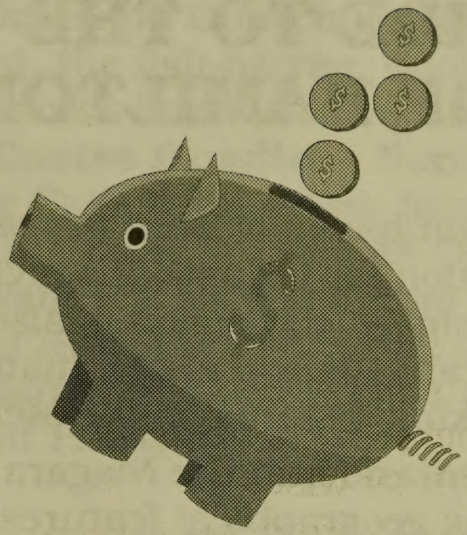
- The most energy efficient snow cleaner is your shovel. It requires only two drops of oil a year to prevent rust.
- Plant trees around your home for shade and shelter. Trees will save energy by protecting you from wind in the winter and cooling your home in the summer. Try planting evergreens on the north for winter protection and deciduous trees (oak, maple, etc.) for summer shade in the south, east, and west.

Vehicles

- Do not let your car stand idling for more than 30 seconds. Idling pollutes the air we breathe, wastes gas, and contributes to engine wear.
- Use public transportation, walk, or bike.
- Car pool to work.

For more information on energy efficient households, contact Hamilton-Wentworth's Green Venture at 540-8787. They will gladly answer your questions and/or arrange a visit for a "Home Green Up" to save you money.

Following the "Energy Conservation Tips" will save you money.



Just take a look:

SEALING MAIL SLOTS
Time: 1 hour
Cost: $5 - $10
Savings/Year: $10 - $20
Materials: Screwdriver, insulation, utility knife, caulking gun and caulking, cardboard, paint, paint brush.

WEATHERSTRIPPING DOOR JAMS
Time: 1 hour
Cost: $15-$30
Savings/Year: $10-$20
Materials: Weatherstripping, hacksaw or utility knife or scissors, measuring tape, caulking gun and caulking, screwdriver, stiff brush or rag, sandpaper, stain or paint.

CAULKING A WINDOW
Time: 3/4 hour
Cost: $2-$5 /window
Savings/Year: $10-$15 /window
Materials: Caulking, caulking gun, small stiff brush, cleaning solution and cloth, stool or ladder.

SEALING WALL OUTLET GASKETS
Time: 5 min/gasket
Cost: 30¢ - 50¢ /gasket
Savings/Year: 30¢ - 50¢ /gasket
Materials: Screwdriver, foam gasket, lamp.

WATER-SAVING SHOWER HEAD
Time: 1/2 hour
Cost: $11 - $45
Savings/Year: $50 - 80
Materials: Vice grips, wrench, rag, teflon tape, penetrating oil, water-saving shower head.

OUTDOOR CLOTHESLINE
Time: 2 to 3 hours
Cost: $ 30 - $50
Savings/Year: up to $80.00
Materials: Clothesline kit, drill and ladder; or umbrella clothesline, shovel, and concrete; or a string strung between two poles / side of the house and a fence.

GUIDE TO THE NATURAL AREAS OF HAMILTON-WENTWORTH

Hamilton has long been termed the "Steel City" due to its reputation for industrial activity and related pollution. Surprisingly, the region is also home to a number of significant natural areas, many of which are within walking and biking distance of the McMaster University campus.

Lake Ontario and the Niagara Escarpment are Hamilton's defining geographical features and have greatly influenced the city's development over its 150 year history. The Escarpment provides this Southern latitude with many species rare to Canada in an ecological zone of vegetation called "Carolinian Canada" and thirteen waterfalls can be found along its heights. The Bruce Trail passes through Hamilton on its path from the Niagara peninsula to Tobermory on Georgian Bay. The Lake Ontario Waterfront Trail, beginning in Trenton on the other side of Toronto, crosses the Burlington Ship Canal to continue along the lakeshore at Hamilton's Beach Strip.

Hamilton Region Conservation Authority

HRCA operates 11 conservation areas in the region, of which the **Dundas Valley** and **Spencer Gorge Wilderness Area** are two of the most spectacular and found closest to campus. The **Dundas Valley** features extensive trails for hiking, cycling, horseback riding, and cross-country skiing. Maps are available at the Trail Centre (found along the Jerseyville Rail Trail) showing trails and the three heritage buildings on the property. **Spencer Gorge** offers a magnificent city-view from Dundas Peak, as well as a trail by Webster's and Tew's Falls, second only to Niagara Falls for their heights and waterflow. Join the trail from Dundas or off Harvest Rd. on the Escarpment.

Royal Botanical Gardens

In addition to its horticultural displays, the RBG also maintains several conservation areas with hiking trails.

Cootes Paradise - South Shore shoulders the McMaster campus and is accessed behind Brandon Hall, Hedden Hall,

the Ivor Wynne Centre, Cootes Drive and Churchill Park. Places to note are Sassafras Point, the fish barrier, Cootes Restoration Project sites, and Princess Point (skating and cross-country skiing in winter). **Cootes Paradise - North Shore** and **Rock Chapel/Borer's Falls** (with a view from the Escarpment) are only a little farther away, located off Olympic Dr. from Dundas. The **Hendrie Valley** is accessed from the bike path at Dundurn Castle and leads through a marsh boardwalk to the RBG main gardens. The RBG Nature Interpretative Centre is located off Plains Rd. West, Burlington.

Bruce Trail

The Bruce Trail Association publishes a guide book covering the details of the entire system. Nearby access points include:

- RBG Arboretum (Bruce Trail Headquarters located here)
- Dundas Valley Conservation Area
- Spencer Gorge Wilderness Area
- Chedoke Radial Trail

Look for the white trail blaze markings painted on trees.

*Red Hill Valley**

Red Hill Creek is the last natural creek left of 14 creeks that once flowed through Hamilton. It accounts for more than a third of Hamilton's parkland and contains several significant archeological sites dating early aboriginal inhabitation. Red Hill Valley sports a new multi-use trail and features two waterfalls: Albion Falls and Buttermilk Falls. A proposal to build an expressway down the middle of the valley has seriously divided the Hamilton area for more than 30 years.

Rail Trails

Jerseyville Rail Trail: a gravel multi-use path leading from Ewen Rd. (off Main St. West by CNIB) through the Dundas Valley to Brantford.

Chedoke Radial Trail: from Mountain Ave. (off Aberdeen), passing through the Chedoke golf course and ski lifts, along the Escarpment up to Scenic Drive on the Mountain.

Escarpment Rail Trail*: from the Wentworth St. steps, through Mountain Face park, to Red Hill Valley (connects to the Red Hill multi-use trail).

Other Points of Natural Interest

- **Urquhart Butterfly Garden** (located in Dundas at the end of Desjardins Canal)
- **Sam Lawrence Park*** (on the mountain brow accessed by the Jolly Cut or the Wentworth Street stairs)
- **Hamilton Cemetery, Dundurn Castle & Woodland Cemetery** (take Dundurn St. towards Burlington)
- **Bayfront Park & Pier 4 Park** (multiuse path on Hamilton Harbourfront; access from Harbourfront Dr. off Bay St.)
- **White Chapel Cemetery and Tiffany Falls Conservation Area** (towards Ancaster along Wilson St.)
- **Beverly Swamp*** (hike, mountain bike, and cross-country ski in this highly significant natural area located off Highway 8)

** most easily accessed by car or bus from the McMaster campus*

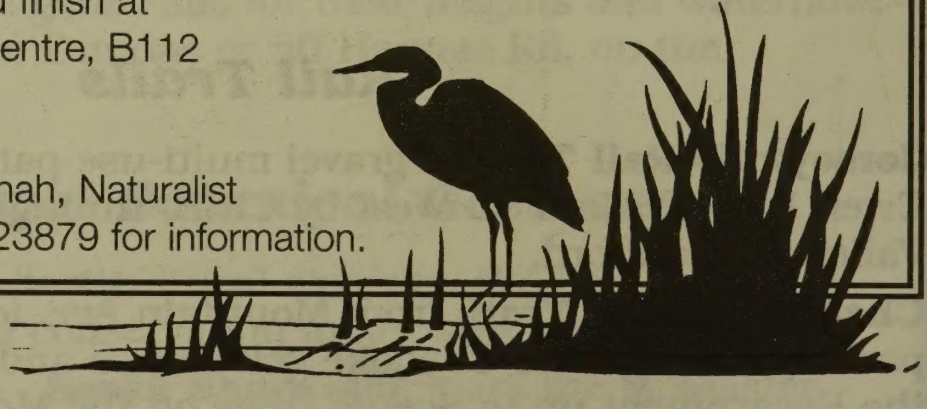
And don't forget to check out McMaster's Athletic and Recreation Department's Outdoor Trips for canoeing, horseback riding, nature study, and cycling for outdoor experiences.

http://www.athrec.mcmaster.ca

Wednesday Lunch Hour Tooney Walks
11:45 am to 1 pm

All hikes start and finish at
the Ivor Wynne Centre, B112
(Issue Wicket)

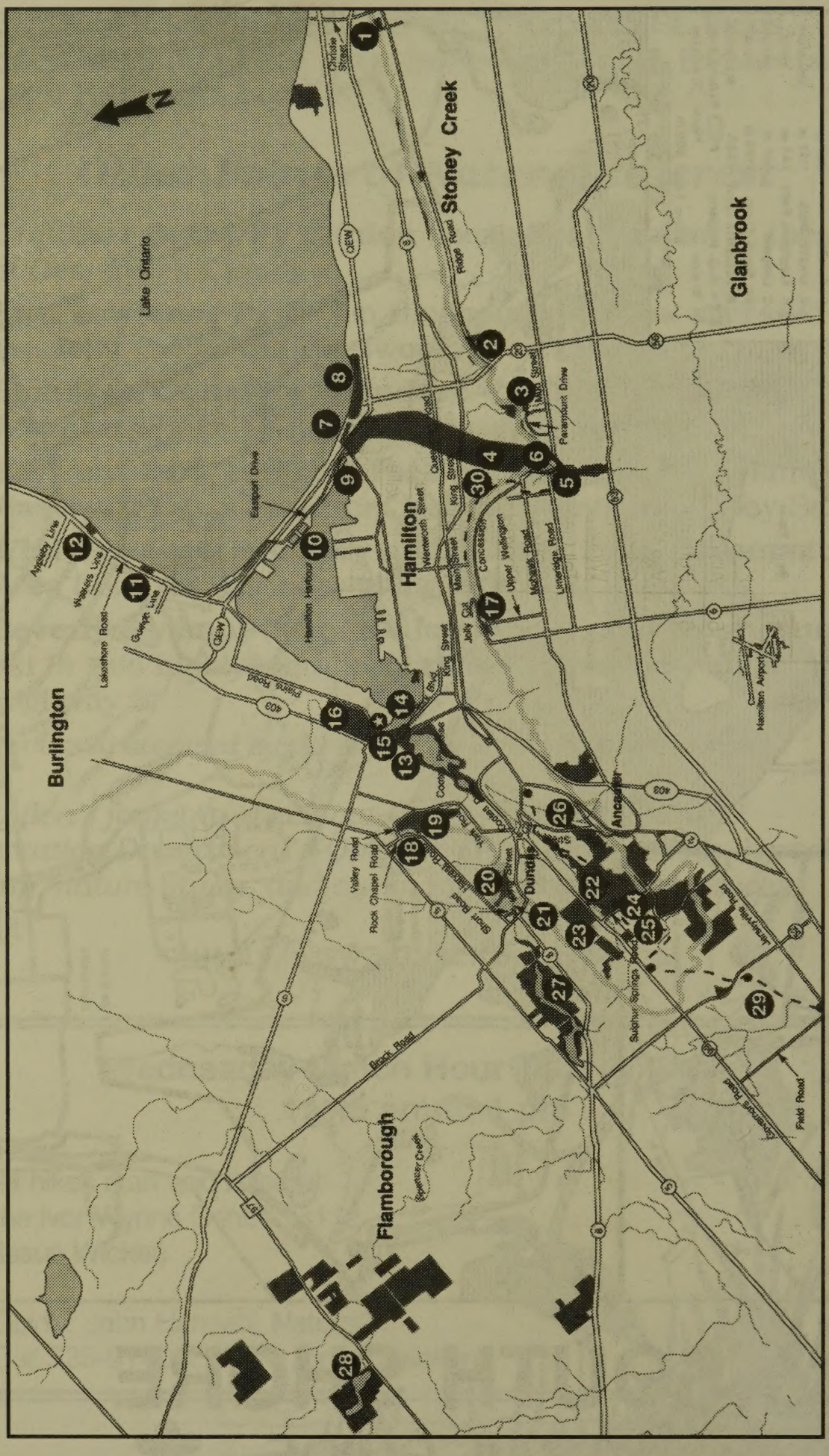
Guide: John Hannah, Naturalist
Call 525-9140 x 23879 for information.



This section was prepared by Our Shared Home: An Ecomusée Initiative.

SOUTH SHORE
TRAIL GUIDE

Royal Botanical Gardens



Adapted from the Hamilton Naturalists' Clubs' "Naturally, Hamilton!".

Hamilton Region Conservation Authority

FOLLOW THIS SIGN TO THE CONSERVATION AREAS

Royal Botanical Gardens

Legend

- Public Green Spaces of Hamilton-Wentworth and surrounding areas
- Niagara Escarpment
- Headquarters - Royal Botanical Gardens
- Hamilton Wentworth Escarpment Rail Trail
- Hamilton Region Conservation Authority West Hamilton to Jerseyville Rail Trail (• indicate location of small parking areas.)

- Birds
- Butterflies
- Vistas
- Amphibiansand Reptiles
- Hiking
- Waterfalls
- Bruce Trail Access

Site #	Location	Birds	Butterflies	Vistas	Amphibians and Reptiles	Hiking	Waterfalls	Bruce Trail Access
1	Beamer Memorial Conservation Area	•		•		•		•
2	Devil's Punch Bowl			•			•	•
3	Felker's Falls			•		•	•	•
4	King's Forest / Red Hill Valley	•	•			•		•
5	Albion Falls			•	•		•	
6	Buttermilk Falls	•		•			•	
7	Van Wagner's Ponds	•			•	•		
8	Confederation Park	•				•		
9	Windermere Basin	•						
10	Toll Gate Ponds	•						
11	Sioux Lookout	•		•				
12	Shoreacres Park	•		•				
13	Cootes Paradise	•	•		•	•		•
14	Woodland Cemetary	•		•				
15	Grindstone Creek / Carroll's Bay	•				•		
16	Hendrie Valley	•	•		•	•		
17	Sam Lawrence Park			•				
18	Rock Chapel	•	•			•		•
19	Borer's Falls			•		•	•	
20	Spencer Gorge / Tews Falls			•			•	•
21	Webster's Falls	•		•		•	•	
22	Dundas Valley Conservation Area	•	•		•	•		•
23	Governors Road Conservation Area	•	•		•	•		•
24	Sulphur Springs Road	•			•	•		
25	Mineral Springs Road	•						
26	Tiffany Falls			•		•	•	
27	Christie Conservation Area					•		
28	Valens Conservation Area	•	•		•	•		
29	Rail Trail - Jerseyville to Dundas	•	•			•		•
30	Escarpment Rail Trail Limeridge Rd. to Wentworth St.	•	•	•		•		•

DIRECTORY

AMITY GOODWILL INDUSTRIES
225 King William St., Hamilton..... 526-8481
For home pick-up 527-2078

ATTENDED DONATION CENTRES

Hamilton:
Mohawk Plaza - Upper James Rd. & Mohawk Rd.
Eastgate Square Mall - Queenston Rd.
Amity Goodwill Industries - 225 King William St.
Limeridge Mall - Limeridge Rd. & Upper Wentworth St.
Dundas:
University Plaza - Miracle Mart

DEPOSIT BOX LOCATIONS

Hamilton:
Foodland - Caroline & Herkimer
Amity Goodwill Industries - 225 King William St.
Amity Store - 1366 Main St. East
Ancaster:
Bantam Convenience Store - Fiddler's Green Rd. & #403

APPLIANCE/WHITE GOODS COLLECTION
White Goods Hotline 548-3979
from 519 1-800-263-8602

BENNETTE'S YOUR BUTCHER ON THE BLOCK
26 King St. West, Dundas..... 628-4332

CANADIAN HEARING SOCIETY HAMILTON REGIONAL OFFICE
2301 King St. East, Hamilton 545-9931
TDD 545-3877

CAPTAIN ENVIRONMENT
1405 Upper Ottawa, Hamilton 318-8882

EARTH'S SECRET VERMI WORM COMPOSTERS
325 Sanatorium Road..... 389-3711

FOOD TABLE
80 University Plaza, Dundas..... 627-5994

GARBAGE AND LARGE ITEM COLLECTION INFORMATION

Ancaster 548-3979
from 519 1-800-330-0868
Dundas 628-6327
Flamborough/Waterdown. 548-3979
from 519 1-800-263-8602
Glanbrook/Mount Hope 692-9225
Hamilton 546-2785
Stoney Creek ..... 643-1261 ext. 271

GOODNESS ME NATURAL FOOD MARKET

880 Upper Wentworth St., Hamilton 388-8400

GREEN VENTURE

2 King St. West, Hamilton *(in Jackson Square Mall)*.... 540-8787

HAMILTON PUBLIC LIBRARY, CENTRAL

55 York Blvd., Hamilton *(in Jackson Square Mall)* 546-3200

HEARING INSTITUTE

39 Charlton Ave. East, Hamilton 523-7983
565 Sanatorium Rd., Hamilton 574-5444

HORN OF PLENTY

24 King St. West, Dundas 627-9980

HOUSEHOLD HAZARDOUS WASTE DISPOSAL

Hotz Environmental Services (Salvage)
239 Lottridge St., Hamilton..... 545-2665

HUMANE SOCIETY SPCA (HAMILTON)

685 Parkdale Ave. North, Hamilton..... 547-1257
245 Dartnall, Hamilton..... 574-7722

JONES OPTIX

1200 Main St. West, McMaster Medical Centre 521-5048

NEIGHBOUR TO NEIGHBOUR CENTRE

28 Athens (near Mohawk & West 5th), Hamilton..... 574-1334

REGION'S SOLID WASTE DISPOSAL SYSTEM

Recycling, composting, transfer stations, household hazardous waste, etc 546-4417

ST. VINCENT DE PAUL RETAIL OUTLETS
461 Cumberland, Hamilton 545-9681

SALVATION ARMY (THE)
FAMILY THRIFT STORES AND DROP OFF LOCATIONS
36 King St. East, Dundas..... 627-5225
911 Vine St., Hamilton..... 521-0991
1037 Mohawk Rd. East, Hamilton 575-1210

SHORNEY'S OPTICAL
70 University Plaza, Dundas..... 627-4488

SPECTEL INFORMATION LINES..... 521-5600
RECYCLING ..... Code 7490
HAZARDOUS WASTE ..... Code 7491
TRANSFER STATIONS ..... Code 7492
COMPOSTING ..... Code 7493

SPILLS REPORTING AND RESPONSE..... 545-1300

RECYCLING HOTLINE/MATERIALS RECYCLING FACILITY
1579 Burlington St. East, Hamilton 545-4880
from 519 1-800-860-8418

WASTE DISPOSAL/TRANSFER STATIONS 546-4417
LOCATIONS:
Olympic Drive & King St., Dundas
Upper Ottawa & Kilbride Rd., Hamilton
Kenora Ave. & Bancroft St., Stoney Creek

WESLEY CENTRE
195 Ferguson Ave. North, Hamilton 528-5629

LOCAL ENVIRONMENTAL ORGANIZATIONS/ PLACES TO VOLUNTEER

HAMILTON:

BAY AREA RESTORATION COUNCIL (BARC)

Life Sciences B130S,
McMaster University ..... 525-9140 ext. 27405
BARC focuses on promoting, monitoring, and assessing the implementation of the Hamilton Harbour Remedial Action Plan (RAP). Members can receive up-to-date information, influence planning on harbour issues, and participate in rehabilitation projects.

THE BRUCE TRAIL ASSOCIATION

P.O. Box 857..... 529-6821
A volunteer/non-profit organization whose mandate is to secure, maintain, and develop a natural footpath along the length of the Niagara Escarpment from Niagara to Tobermory.

CAREERS FOR A BETTER WORLD INC.

41 King William St., Suite 206 524-3221
An environmental consulting and communications company; publishers of Ecolutions magazine.

CONSERVER SOCIETY OF HAMILTON

255 West Avenue North 522-5779
A volunteer environmental organization working to educate and encourage people to adopt a more environmentally friendly lifestyle.

HAMILTON ENVIRONMENTAL ACTION TEAM

111 Claremont Drive..... 383-3893
HEAT focuses primarily on environmental education and on the need to exercise democratic rights and direct more tax dollars to environmental work.

HAMILTON NATURALISTS CLUB

P.O. Box 89052..... 627-3499

The club promotes the enjoyment of nature through environmental appreciation and conservation of natural resources, protection of natural areas and natural history study.

I.C.O.C. TREES FOR LIFE CANADA

143 Cayuga Ave 648-0927

A non-profit, charitable organization whose main purpose is to provide information, resources, and materials to educate children about the critical role trees play in supporting life on the planet.

McMASTER ONTARIO PUBLIC INTEREST RESEARCH GROUP

Hamilton Hall 210, McMaster University 525-9140 ext. 27289

McMaster OPIRG has a resource centre, facilitates research on environmental issues, and operates a community garden.

McMASTER STUDENTS UNION ENVIRONMENT COMMITTEE

Hamilton Hall 209, McMaster University 525-9140 ext. 24087

The Committee attempts to inform, educate, and raise awareness of environmental issues within the McMaster and local communities.

OUR SHARED HOME: AN ECOMUSEE INITIATIVE

Ivor Wynne Centre 201B, McMaster University,
Contact: Wayne Terryberry 525-9140 ext.23879

The Ecomusée Initiative promotes the active exploration and enjoyment of the Hamilton Harbour watershed by organizing and supporting discovery walks that highlight social, historic, and/or natural themes; by developing and distributing materials for local community education; and by forging partnerships with other community groups active in the region. Volunteers are most welcome.

ROYAL BOTANICAL GARDENS CONSERVATION OFFICE/ PROJECT PARADISE/NATURE INTERPRETIVE CENTRE

York Blvd 527-1158

The RBG is geared towards conservation and biodiversity; replanting aquatic plants in Cootes Paradise; and educating the public about these issues.

SHAIR INTERNATIONAL RESOURCE CENTRE

255 West Ave. North 528-9055

Focuses on the relationship between Canada and other parts of the world; provides information about other parts of the world and how that relates to Canada.

BURLINGTON:

ALLERGY AND ENVIRONMENTAL HEALTH ASSOCIATION OF CANADA

P.O. Box 40604 ..... (519)940-0964

AEHAC advocates for the reduction of and encourages prudent avoidance of risk factors for disease. AEHAC aims to increase the knowledge and awareness of environmentally related diseases , stressing prevention, recognition, and treatment.

THE BURLINGTON CONSERVER SOCIETY

1552 Newlands Cres 332-7395

The Conserver Society seeks to educate and advocate for environmental sustainability in Burlington. Major issue focuses are harbour rehabilitation, transportation, and air quality.

ONTARIO FIELD ORNITHOLOGISTS

P.O. Box 62014, Burlington ..... (416)226-5380

The OFO is a provincial recreational bird watching club which publishes books and journals and conducts field trips. They also supervise the Ontario Bird Records Committee.

CALEDONIA:

CALEDONIA ENVIRONMENTAL ACTION GROUP

55 Banff St 765-6719

CEAG is an environmental watchdog group for the Caledonia area.

GREENSVILLE:

GREENSVILLE AGAINST SERIOUS POLLUTION INC.

659 Harvest Rd..... 627-4647
GASP aims to prevent pits and quarries from becoming landfill sites and threatening the groundwater resources in the province, and also to prevent aggregate kilns from becoming incinerators. GASP also promotes the 3 Rs and educates the public on waste reduction practices.

STONEY CREEK

ENVIRONMENTAL AWARENESS GROUP - STONEY CREEK

127 Gray's Rd. 662-8393
The group has initiated reuse and recycling programmes at Saltfleet High School.

FRIENDS OF RED HILL VALLEY

Unit 61, 151 Gateshead Rd. 664-8796
Friends of Red Hill Valley's goal is to preserve Red Hill Valley as public parkland and prevent the construction of an expressway through it.

STONEY CREEK RESIDENTS AGAINST POLLUTION (SCRAP)

50-34 Mistywood Dr 560-4805
SCRAP's mandate is to protect citizens of the Niagara Escarpment and residents from the proliferation of landfills along the escarpment.

RESOURCES:

Blattel, Adrienne. *Student Guide to the Natural Areas of Hamilton-Wentworth.* Hamilton: McMaster University, 1996.

Bowermaster, Jon and Will Steger. *Saving the Earth: A Citizen's Guide to Environmental Action.* New York: Alfred A. Knoff Inc., 1990.

Griss, Paul. *The Daily Planet.* Toronto: Key Porter, 1990.

Hamilton Naturalists' Club. *Naturally, Hamilton! A Guide To The Green Spaces of Hamilton-Wentworth.* Hamilton: Hamilton Naturalists' Club.

http://www.web.apc.org/rco/factsheet. Recycling Council of Ontario, 1996.

Johnson, Gordon K. *Environmental Tips: How You Can Save This Planet.* Calgary: Detselig Enterpriser Limited, 1990.

Johnson, Lorraine. *Green Future: How to Make a World of Difference.* Markham: Penguin Books, 1990.

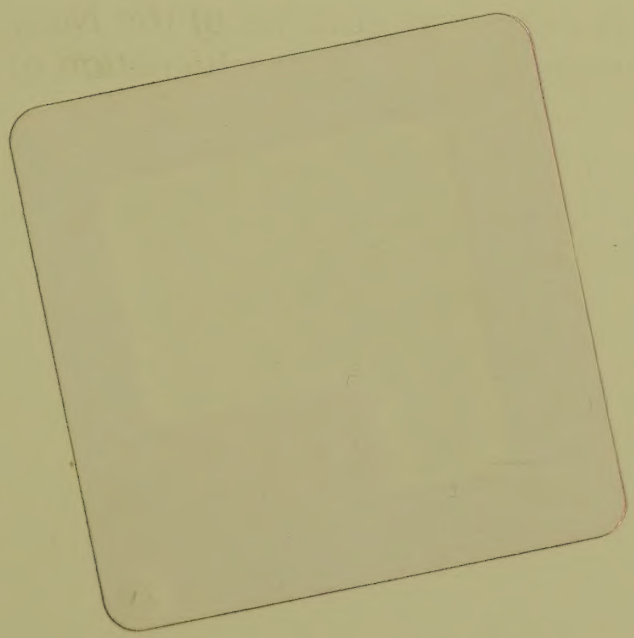
Morril, John and Alex Wilson. *Consumer Guide to Home Energy Saving.* California: American Council for an Energy Efficient Economy, 1993.

Ontario Environmental Network. *Environmental Resource Book 1996-97.* Guelph: OEN, 1995.

Rees, Andrew. *The Pocket Green Books.* London: Zed Books Ltd., 1991.

Rifkin, Jeremy. *The Green Lifestyle Handbook.* New York: Henry Holt and Company, 1990.

Water: No Time to Waste, A Consumer's Guide to Water Conservation. Environment Canada, 1990.



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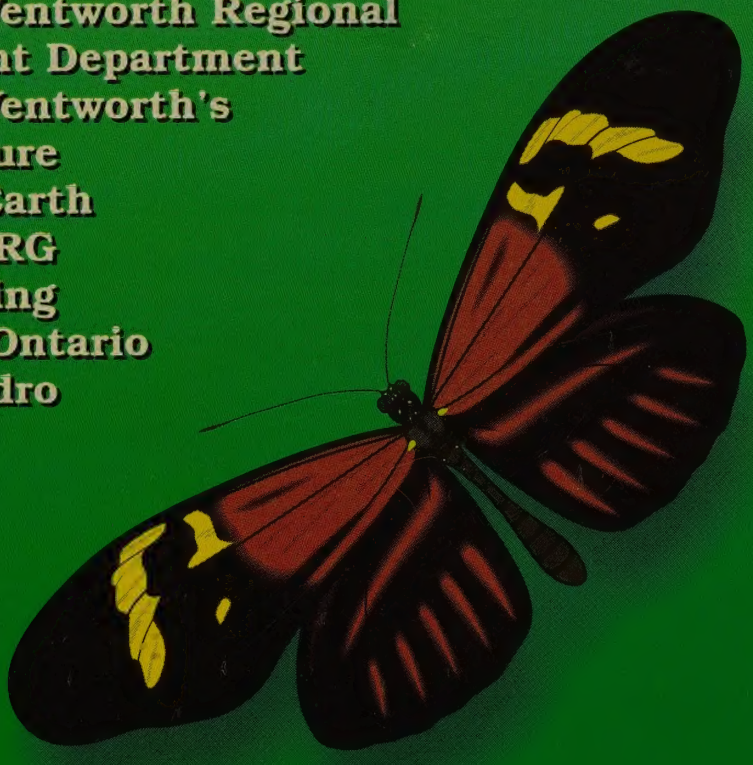
ENVIROGUIDE BY: Kim Fralick, Project Co-ordinator, McMaster Students Union, 1995
Manisha Thomas and Nashina Visram, Project Co-ordinators, McMaster Students Union, 1996

SPECIAL THANKS TO:

- McMaster Students Union (MSU), McMaster University
- Environmental Youth Corporation
- Hamilton-Wentworth Regional Environment Department
- Hamilton-Wentworth's Green Venture
- McMaster Earth Action/OPIRG
- The Recycling Council of Ontario
- Ontario Hydro



Spectel Information Lines 521-5600
Codes:
- **Recycling Information 7490**
- **Household Hazardous Waste 7491**
- **Transfer Stations 7492**
- **Backyard Composting 7493**

Recycling Hotline..... 545-4480
- **Toll Free (From 519) ..1-800-860-8418**

Appliance/White Goods Collection
- **Hamilton..... 548-3979**
- **Toll Free (From 519).. 1-800-263-8602**

General Inquiries 546-4417